# INTERNET AND AVIATION

WHY YOU NEED FASTAPN WHEN FLYING









### ITS DIFFERENT WHEN YOU FLY

SO WHATS THE DIFFERENCE BETWEEN IN THE AIR AND ON THE GROUND

### IN THE AIR

- Low Bandwidth
- High Contention
- Expensive to Install and Operate
- High Congestion
- Huge Distance to Access
- Very Large Network Delays
- Devices not suited to Space

### ON THE GROUND

- High Bandwidth
- Low Contention
- Cheap to Install and Operate
- Low Congestion
- Little Distance to Access
- Very Little Network Delays
- Devices made for Earth



### MY CONNECTION IS ALWAYS BAD

#### WHAT DIRECTLY CAUSES THE BAD IIN AIR EXPERIENCE

### DISTANCE

One round trip from the aircraft to the internet is 100000 miles, and you need several trips to get
your data, its not uncommon to be waiting in excess of 10 seconds for your first page.

### **EXPENSE**

• Buying time on satellites as a user or an operator is not cheap, so you are bundled on the same bus as many others, all concurrently waiting for data, this causes severe congestion.

#### **CHATTER**

Congestion is made much worse by unwanted data constantly bombarding you that you do not
even know about or want, such as adware, malware and analytics gathering.
 This all dramatically increases costs, while you paying for something you didn't ask for.

### **DEVICE**

• Most software doesn't work out of the box with big congested delays, called high RTT's, as the network language we all use, TCP/IP, needs conditioning and adjustments to work well under these conditions.



### YOUR INTERNET USE

### THE FASTAPN GLOBAL NODES RECEIVE AND CHECK YOUR REQUESTS

### **GETTING YOUR DATA**

• In order for FastApn to handle your connection, your data is routed to us by means of either a Proxy, VPN, DNS or DHCP, most software and devices have at least one of these access options built in.

### CHECKING YOUR DATA

Once your data hits our global servers the extensive processing starts with a check to see
if the requests are actually valid, via our DPF, servers that check the calls against millions
of known fraudsters, advertisers and analytical services. In daily operations we prevent
more than 56% of traffic being sent to your device without your knowledge, saving costs
and congestion.



### PROCESSING YOUR CONNECTION

### HOW FASTAPN CONDITIONS YOUR CONNECTION TO MATCH CONDITIONS

### PROCESSING YOUR CONNECTION

 In the high RTT and congested world of satellite communications, there have been many discoveries for handling these non standard requests including PEPSALS (Performance Enhanced Proxy for Satellite Links), we utilise these in addition to our own methodology, to handle delays caused by the long distances. Improvements are shown to increase throughput by up to 12 x, and reduce free space and network latency.

### HANDLING THE CONGESTION

Using our DPF nodes eliminate unwanted traffic at source, and is only part of the
conditioning. We also dynamically apply well known and proprietary algorithms to
change the TCP characteristics to suit and manage congestion over these high RTT links,
there are currently 9 such methods used.



### A SUMMARY OF FASTAPN

#### WHAT FASTAPN DOES IN A NUTSHELL

#### A NON INVASIVE SERVICE

o Use a Proxy, VPN, by DHCP or simple DNS addition to any device.

#### INCREASES ACCESS SPEEDS

o PEPSAL and DTN published tests show an improvement of up to 12 x throughput

### DRAMATICALLY REDUCES COSTS

o DPF Nodes with dynamic network controls, eliminate more than 56% of unwanted traffic at source

### SHORTENS ACCESS DELAY TIMES

o Techniques are used that eliminate multiple round trips for traffic, thereby delivering your data quicker

### POSITIONS YOU IN COUNTRY

 SmartAV DNS positions you in any one of 6 countries, ideal for corporate VPN security or in country streaming



## FASTAPN OPERATION

#### HOW TO USE THE FASTAPN SERVICE

### PLUG AND GO

All configuration options can be found at fastapn.com, from simple DNS,
 VPN or Proxy access to iphone pac files and simple browser setups.

### SELECT COUNTRY NODE

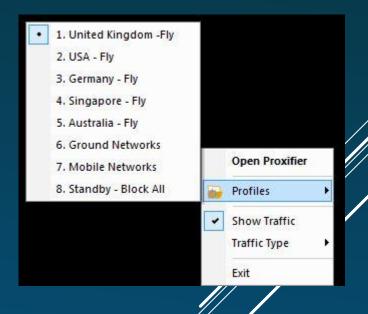
o As a standalone, it remembers your last country, but you can choose any of the country nodes at any time, this is ideal for in country streaming services, wherever you are.

### CHECK STATISTICS

 You do have the option to monitor live connections, real time traffic graphs and throughput statistics, as well as watching all those detected and dropped 'bad guy' connections.

### MULTIPLE MODES

 Apart from in country nodes, you also have Ground and Mobile, Blocking and Bypass modes. Stop unwanted background chatter that's ramps up your bill when you're not using your laptop.





## FASTAPN SERVICE CHARGES

ACCESS COSTS FOR THE FASTAPN SERVICE

Clients / Systems	DNS	Proxy	VPN	DHCP	Unbound	GUI	Contract	GUI	Month £
/32 -1	1	<b>V</b>	1	8	8	8	8	3	£2 (DAY)
/32 -1	1	<b>V</b>	1	8	8	8	8	3	£5.49
/31 -2	<b>V</b>	<b>V</b>	1	8	8	8	8	3	£8.98
/30 -4	<b>V</b>	<b>V</b>	1	8	8	8	8	3	£13.96
/29-8	<b>V</b>	<b>V</b>	1	8	8	3	<b>V</b>	3	£27.92
/28-16	<b>V</b>	1	<b>V</b>	8	8	(3)	<b>V</b>	3	£55.84
/27-32	1	<b>V</b>	1	8	8	8	<b>V</b>	3	£116.68
/26-64	<b>V</b>	<b>V</b>	<b>V</b>	8	83	(3)	<b>V</b>	0	£223.36
/25-128	<b>V</b>	<b>V</b>	0	<b>V</b>	8	8	<b>V</b>	3	£446.72
/24-256	<b>V</b>	8	0	<b>V</b>	8	8	<b>V</b>	0	£893.44
Unlimited	<b>V</b>	8	0	8	8	8	<b>V</b>	0	£1786.88





### HOW TO CONTACT US FOR YOUR FASTAPN SERVICE ACTIVATION

Email: access@fastapn.com Support: 24/7 Chat Interactive

**Call**: UK +44 203 991 0033 USA +1 720 598 8055

- fastapn.com
  - ☐ Information and configuration Instructions, fast payments
- flytlink.com
  - ☐ Development company information and services
- transcom.net
  - ☐ Full ISP and online store for all fastapn services